Harmony in the Hybrid Era: Digital Competence and Work Life Balance Create Exceptional Resilient Human Resources

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ABSTRACT

The rapid growth of the digital startup ecosystem has transformed the labor market, creating a demand for resilient and adaptive human resources. Hybrid work arrangements and digital competencies are crucial in this context, yet their impact on human resource resilience, with work-life balance as a mediator, remains underexplored. This study aims to examine the effects of hybrid work and digital competence on human resource resilience in digital startups while investigating the mediating role of work-life balance. A quantitative approach using Structural Equation Modeling–Partial Least Squares (SEM-PLS) analysis was employed on a purposive sample of 150 employees from digital startups in Bandung, with data collected through structured questionnaires measuring hybrid work, digital competence, work-life balance, and human resource resilience. Results indicate that hybrid work and digital competence significantly influence human resource resilience, with work-life balance partially mediating these effects. The proposed model explains 83.4% of the variance in human resource resilience and 60.5% of the variance in work-life balance. These findings underscore the necessity of integrated policies that combine hybrid work, digital competency development, and work-life balance enhancement to foster sustainable human resource resilience in digital startups.

Keywords*: Digital Competencies, Digital Startups, Employee Adaptability, Hybrid Work, Work-Life Balance.*

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ABSTRAK

Pertumbuhan pesat ekosistem startup digital telah mengubah pasar tenaga kerja, menciptakan kebutuhan akan sumber daya manusia yang tangguh dan adaptif. Sistem kerja hybrid dan kompetensi digital menjadi faktor penting dalam konteks ini, namun pengaruhnya terhadap ketahanan sumber daya manusia, dengan keseimbangan kerja-hidup sebagai mediator, masih belum banyak diteliti. Penelitian ini bertujuan untuk menganalisis pengaruh kerja hybrid dan kompetensi digital terhadap ketahanan sumber daya manusia pada startup digital sekaligus mengeksplorasi peran mediasi keseimbangan kerja-hidup. Pendekatan kuantitatif dengan analisis Structural Equation Modeling–Partial Least Squares (SEM-PLS) diterapkan pada sampel purposive sebanyak 150 karyawan dari startup digital di Bandung, dengan data dikumpulkan melalui kuesioner terstruktur yang mengukur kerja hybrid, kompetensi digital, keseimbangan kerja-hidup, dan ketahanan sumber daya manusia. Hasil penelitian menunjukkan bahwa kerja hybrid dan kompetensi digital secara signifikan memengaruhi ketahanan sumber daya manusia, dengan keseimbangan kerja-hidup berperan sebagai mediator parsial. Model yang diusulkan menjelaskan 83.4% variasi ketahanan sumber daya manusia dan 60.5% variasi keseimbangan kerja-hidup. Temuan ini menekankan pentingnya kebijakan terpadu yang menggabungkan kerja hybrid, pengembangan kompetensi digital, dan peningkatan keseimbangan kerja-hidup untuk membangun ketahanan sumber daya manusia yang berkelanjutan pada startup digital.

***Kata kunci**: Kompetensi Digital, Startup Digital, Adaptabilitas Karyawan, Kerja Hybrid, Keseimbangan Kerja-Hidup.*

INTRODUCTION

The rapid advancement of digital technology, particularly within the digital startup ecosystem, has profoundly transformed the labour market. Digital startups rely heavily on a resilient and adaptable workforce to survive in highly competitive environments. Over the last decade, a major shift has been the adoption of hybrid work systems, which integrate in-office and remote work, offering employees flexibility in terms of location and schedule (Bal & Bulgur, 2023; Dara et al., 2025; Lauring & Jonasson, 2025). While hybrid work can enhance employee autonomy and productivity, it also poses challenges, including social isolation and the potential for an imbalance between personal and professional life (Irfan et al., 2023; Oliveira & Bollen, 2023; Anamta Ali, 2025).

Existing studies indicate a positive relationship between hybrid work, digital competence, and human resource resilience (Ahmić & Ćosić, 2025; Alexandro, 2025; Natasha et al., 2025). Transformational leadership, when combined with strategic investment in digital technologies, has been shown to enhance organizational resilience by facilitating adaptation to change (Awad & Martín, 2024; Yu & Xiang, 2024; Gloria, 2025). Digital competence has become a critical factor for business success in the era of digital transformation, particularly for startups dependent on rapid innovation (Harto et al., 2023; Usman & Sun, 2023; Kartika, 2024; Baehaqi & Amin, 2025). Research by Sofiyan et al. (2024), Fauzi et al. (2025), and Zuñiga et al. (2025) suggests that Competence in digital skills can improve employee productivity and help navigate uncertain and dynamic work environments, whereas research by Bourlakis et al. (2023), Kumar (2024), and Sharma (2024) suggests that a lack of technological mastery may increase workplace stress, reduce productivity, and weaken organizational performance.

In this context, work-life balance emerges as a critical mediating factor. Hybrid work systems have the potential to enhance job satisfaction and overall well-being (Aprilina & Martdianty, 2023; Dara et al., 2025; Selvanayagam & Venkatakrishnan, 2025). However, insufficient organizational policies regarding remote work may disrupt the equilibrium between personal and professional life (Kusumawati, 2024; Pardosi et al., 2024; Ribeiro et al., 2024). Understanding the interaction among hybrid work, digital competence, work-life balance, and human resource resilience is essential for addressing workplace

uncertainty and enhancing startup competitiveness (Dabić et al., 2023; Ahmić & Ćosić, 2025; Alexandro, 2025).

Despite extensive research on employee resilience, prior studies have predominantly focused on specific industries, often neglecting the mediating role of work-life balance (Bernuzzi et al., 2022; Anastasopoulou et al., 2023). Many investigations examine only the direct impacts of hybrid work and digital competence on performance outcomes, without exploring mechanisms such as work-life balance (Harunavamwe & Kanengoni, 2023; Eng et al., 2024; Fauzi et al., 2025). Research on large corporations is far more common than studies on digital startups, leaving a gap in understanding how startups develop human resource resilience (Usman & Vanhaverbeke, 2017; Usman & Sun, 2023). Furthermore, aspects such as collective resilience, its evolution over time, and resistance to technological disruptions remain underexplored (Ahmić & Ćosić, 2025; Dickson, 2025; Fitrah et al., 2025).

To address these gaps, scholars suggest developing integrative, multi-level, and longitudinal research approaches, including the investigation of mediating mechanisms and contextually robust measures. Such approaches can provide deeper insights into enhancing human resource resilience through the optimization of hybrid work, digital competency development, and improved work-life balance. Drawing on Resource-Based View (RBV) and Conservation of Resources (COR) theories, this research posits that digital competence and work-life balance function as strategic resources that enhance resilience in hybrid work environments. According to Barney (1991), RBV highlights that valuable resources, such as digital skills, enable firms to adapt to market changes, while according to Hobfoll (1989), COR theory emphasizes that work-life balance, as a psychological resource, prevents burnout and fosters resilience through a "gain spiral". However, the combined effect of digital and psychological resources on human resource resilience in hybrid contexts remains underexplored.

Understanding the interrelationship between hybrid work, digital competence, work-life balance, and human resource resilience in digital startups is crucial for both academic and practical purposes. By addressing theoretical and practical gaps, this study seeks to provide insights into how strategic digital and psychological resources can synergistically enhance employee and organizational resilience in the digital era. The main objective of this research is to develop a comprehensive conceptual framework examining hybrid work and digital competence as independent variables, with work-life balance as a mediating variable, to analyze their combined effect on human resource resilience.

LITERATURE REVIEW & HYPOTHESIS DEVELOPMENT

Hybrid Work and Digital Competency on Resilient Human Resources

According to Jayakar and Babu (2012), Bhat et al. (2023), and Aprilina and Martdianty (2023), there is a strong and significant relationship between the implementation of hybrid work, the development of digital competencies, and the development of resilient human capital in a particular organization. The hybrid work model, which integrates work from home and the workplace, has emerged as a new paradigm that increases employee flexibility and productivity and enables better work-life balance, supported by proactive communication and effective leadership (Kumari et al., 2024; Mustajab, 2024; Endayani & Putri, 2024; Paredes et al., 2024). Digital competency is crucial to the successful application of this model because proficient digital skills not only improve productivity but also make it easier to collaborate in virtual settings by leveraging cutting-edge technologies and digital platforms (Kiryakova & Kozhuharova, 2024; Kuzior & Sira, 2024; Audrin et al., 2024; Quttainah & Singh, 2024; Zuñiga et al., 2025).

This digital competency is essential for startups and businesses to adjust to market changes and increase sales (Bachmann et al., 2024; Gerasimenko & Razumova, 2020; Mohamad et al., 2025). In the end, the realization of resilient human resources is greatly aided by the synergy between digital competencies and mixed work (Surianto et al., 2024; Alexandro, 2025; Citraresmi et al., 2025). Resilient human resources is derived from work flexibility, the ability to adjust to changes, and the role of digital technology in managing

human resources (Ruiz et al., 2024; Surianto et al., 2024; Ahmić & Ćosić, 2025). Strategic practices that help companies anticipate disruptions and better manage crises include employee empowerment, increasing self-efficacy, and digitizing HRM processes (Puspita, 2024). These practices further improve organizational resilience. Because of this, it can be said that hybrid work structures provide flexible work structures, digital skills equip people with both technical and non-technical abilities to work together, and the combination of these skills is essential to building human strength in the digital age that is lacking.

H1: Hybrid work has a significant effect on resilient human resources.
H2: Digital competency has a significant effect on resilient human resources.

Hybrid Work and Digital Competency on Work-Life Balance

The implementation of an efficient hybrid work model, characterized by flexibility in time and location, directly creates opportunities to achieve a better work-life balance. This aligns with the findings of Ray and Pana (2021), Cheau and Mui (2024), and Nandhini and Ganesh (2025) that a combination of work environment and schedule flexibility can improve employees' mental and physical well-being. However, achieving these benefits is highly dependent on a key supporting factor, digital competency (Erceg & Zoranović, 2020; Kraus et al., 2022; Radicic & Petković, 2023). Employees must possess adequate digital competency, including technical skills and soft skills such as virtual communication and information management, to operate productively in a hybrid model, thus avoiding the pressure of information overload that can disrupt work-life balance (Ingsih et al., 2024; Dara et al., 2025; Lubis, 2025).

Without digital competency, the flexibility of hybrid work risks blurring the boundaries between work and personal life, leading to increased stress and burnout, a challenge identified (Mustajab, 2024; Lubis, 2025). It is therefore imperative that organizations provide ongoing training to enhance digital competencies and effective leadership in managing distributed teams (Koednok, 2008; Lopes et al., 2023; Kashemsanta & Plangsorn, 2023). When employees possess strong digital skills and the right company policies are in place, they can maximize the flexibility of hybrid work to better balance their professional and personal responsibilities (Poláková et al., 2023; Tushar & Sooraksa, 2023; Naqshbandi et al., 2024). This will ultimately enhance job satisfaction, reduce stress levels, and strengthen the desire to remain with the company, thereby creating a positive cycle in which hybrid work, supported by digital competency, serves as a fundamental pillar for achieving sustainable work-life balance (Selvanayagam & Venkatakrishnan, 2025; Ashfiyah, 2025).

H3: Hybrid work has a significant effect on work-life balance.
H4: Digital competency has a significant effect on work-life balance.

The Effect of Work-Life Balance

Achieving the ideal Work-Life Balance (WLB) is crucial to developing Resilient Human Resources in any organization. According to research by Ilies et al. (2007), Nielsen et al. (2017) and Su and Hahn (2022) multi-level variables, ranging from individual sensitivity to organizational environment, influence work-related well-being by creating a supportive environment. Employees who are able to improve their work-life balance consistently experience higher levels of stress, have higher levels of work-related productivity, and show greater loyalty to the company (Natanael et al., 2023; Badaruddin et al., 2024; Marecki, 2024). Positive psychological conditions that serve as a foundation for individual resilience enable employees to have more mental and emotional capacity to cope with stress and adjust to changes (Kunzler et al., 2020; Ahmed et al., 2022; Singh et al., 2024).

As stated by Irfan et al. (2023) and Syahada and Firdaus (2025) Organizational environments that are supportive can mitigate the negative effects of work-related stress and serve as a catalyst to transform WLB into a collective one. Organizational resilience,

or resilience, is then developed through HR, which is already in place and is further developed by the Strategic Human Resource Management (SHRM) practice (Lee & Sirgy, 2019; Aprilina & Martdianty, 2023; Kumari et al., 2024). Strategic human resource management helps employees become more self-efficacious and self-managing, while agile leadership and digitalization in HRM provide flexible work skills to prevent disruptions and handle crises (Li et al., 2022; AlNuaimi et al., 2022; Wahdaniah et al., 2023; Putri et al., 2024; Luan, 2025). Accordingly, it can be said that work-life balance is not a goal for employee well-being, but rather an investment strategy that aims to create resilient human beings, whether they are individuals or organizations, who can adjust and grow when faced with change and adversity.

H5: Work-life balance has a significant effect on resilient human resources.

Work-life balance is a key mediator that strengthens the relationship between digital competency development and hybrid work practices with the help of resilient human resources. Understanding that the flexibility of hybrid work and the efficiency of digital competency in its broadest sense are tools or initial conditions (Mustajab, 2024; Putri et al., 2024). This new technology can effectively build human strength if it is successful in establishing individual psychological well-being, which is manifested through WLB. In other words, flexible work arrangements will only increase employee resilience if they are successful in reducing conflict among coworkers and enabling employees to have a positive outlook on their time and lives, thereby reducing stress and increasing positive energy to adjust to changes (Indradewa & Prasetio, 2023; Kossek et al., 2023; George & Poluru, 2024). Additionally, digital competency will only contribute to organizational effectiveness if employees are able to use technology to increase efficiency; otherwise, it will result in information overload, which depletes resources and increases workload (Ingsih et al., 2024; Fauzi et al., 2025).

H6: Work-life balance mediates the relationship between hybrid work and resilient human resources.
H7: Work-life balance mediates the relationship between digital competency and resilient human resources.

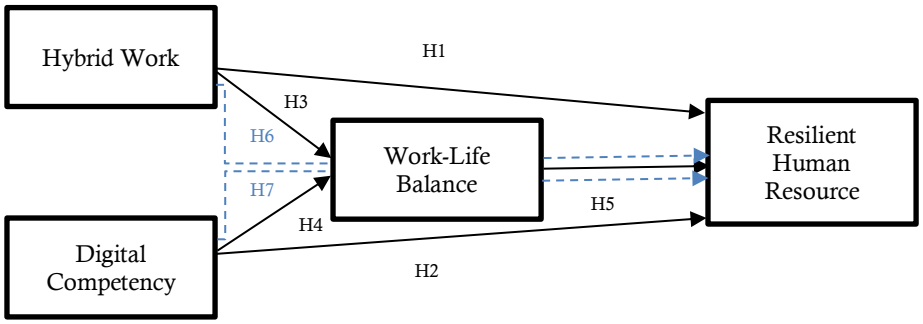

Figure 1. Conceptual Framework

Figure 1 presents the conceptual framework of this study, illustrating the hypothesized relationships among hybrid work, digital competency, work-life balance, and resilient human resources. The framework proposes that hybrid work and digital competency directly influence both work-life balance and resilient human resources. Furthermore, work-life balance is expected to mediate the effects of hybrid work and digital competency on resilient human resources, emphasizing its mediating role in enhancing employee resilience within modern organizational settings.

RESEARCH METHODS

This study employs a quantitative research design with a descriptive-verificative approach to test the proposed hypotheses. It uses purposive sampling in conjunction with non-probability sampling to ensure that sample characteristics are in line with the study's objectives (Taherdoost, 2016). The target population consists of digital startup employees in Bandung who meet the following criteria: (1) Employees must be fixed/contract for a minimum of one year, (2) have a minimum of one year of work experience, and (3) use a hybrid work model. About 150 respondents were selected using the following double distribution techniques: first, through HR startup for internal distribution, and second, through professional LinkedIn and startup groups on WhatsApp and Discord. Data collection was conducted over three months using an online Google Forms questionnaire that had been validated and its reliability assessed through pilot research with thirty respondents.

Every variable is measured using a Likert scale ranging from 1 to 5, which is adjusted based on the validated instrument. Hybrid work (X1) is characterized by workplace flexibility, temporal flexibility, technology enablement, job autonomy, and team connectivity. Digital competence (X2) encompasses information and data literacy, digital communication and collaboration, digital content creation, digital safety, and digital problem solving. Work-life balance (Z) is work-family conflict, time allocation, role satisfaction, psychological well-being, role enhancement, and life domain control. And Resilient human resources (Y) are adaptability to change, stress tolerance, optimism and self-efficacy, innovative problem-solving, and organizational commitment and engagement. The use of previously developed instruments in research ensures both construction validity and reliability.

This study is analyzed using Partial Least Squares Structural Equation Modelling (PLS-SEM) to assess the psychometric quality of the research instrument and evaluate the hypotheses that were proposed. The advantage of PLS-SEM over covariance-based SEM is based on its more robust ability to handle complex models and be suitable for studies aiming to identify variables and develop theories (Hair et al., 2019). There are two primary steps in the data analysis process using the SmartPLS 3.0 software. The first step involves evaluating the measurement model (model pengukuran) to ensure the validity and reliability of the indicator, while the second step focuses on analyzing the structural model and the relationship between the variables, as well as mediating hypotheses.

RESULTS

Based on Figure 2, which illustrates the measurement model, all indicators of hybrid work, digital competence, work-life balance, and resilient human resources exhibit loading factors above 0.70, demonstrating satisfactory convergent validity (Hair et al., 2019). The Composite Reliability (CR) values exceed 0.80, confirming strong internal consistency, while AVE values above 0.50 indicate that each construct explains more than half of the indicator variance. Discriminant validity, verified through the Fornell-Larcker criterion and cross-loadings, further confirms that all constructs are empirically distinct. Thus, the measurement model fulfills the required reliability and validity criteria for proceeding to structural model analysis.

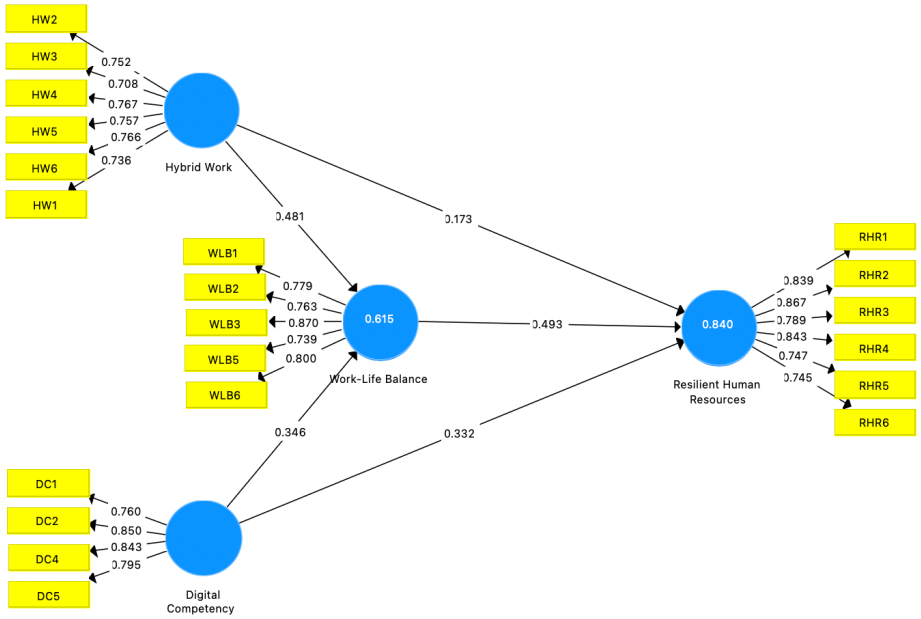

Figure 2. Measurement model

Table 1. Descriptive Statistics and Outer Loading.

Variable	Item	Mean	Median	Min	Max	STD	Loading Factor
Hybrid Work (X1)	HW1	4.188	4.000	1.000	5.000	0.963	0.736
	HW2	4.062	4.000	2.000	5.000	0.899	0.752
	HW3	4.138	4.000	2.000	5.000	0.905	0.764
	HW4	4.000	4.000	2.000	5.000	0.949	0.767
	HW5	4.100	4.000	2.000	5.000	0.943	0.769
	HW6	4.075	4.000	2.000	5.000	0.997	0.766
Digital Competency (X2)	DC1	4.188	4.000	1.000	5.000	0.936	0.789
	DC2	4.138	4.000	2.000	5.000	0.908	0.850
	DC3	4.237	5.000	1.000	5.000	0.925	0.849
	DC4	4.263	5.000	1.000	5.000	0.918	0.795
	DC5	4.263	5.000	1.000	5.000	0.918	0.795
Work Life Balance (Z)	WLB1	4.188	4.000	1.000	5.000	0.976	0.764
	WLB2	3.850	4.000	1.000	5.000	1.097	0.763
	WLB3	3.913	4.000	1.000	5.000	1.049	0.763
	WLB4	4.200	4.000	2.000	5.000	0.886	0.739
	WLB5	4.088	4.000	1.000	5.000	1.075	0.809
	WLB6	4.188	4.000	1.000	5.000	0.976	0.764
Resilience Human Resource (Y)	RHR1	4.213	5.000	2.000	5.000	0.945	0.867
	RHR2	4.213	5.000	2.000	5.000	0.905	0.843
	RHR3	4.200	5.000	2.000	5.000	0.943	0.847
	RHR4	4.000	5.000	2.000	5.000	0.836	0.743
	RHR5	4.225	5.000	2.000	5.000	0.836	0.747
	RHR6	4.213	5.000	2.000	5.000	0.971	0.745

Based on the SEM-PLS results in Table 1, all indicators demonstrate outer loading values above 0.70, confirming adequate convergent validity. Within hybrid work, HW4 (0.767) and HW6 (0.766) contribute most strongly, emphasizing the importance of flexibility and technology support. For digital competence, DC2 (0.850) and DC4 (0.843) indicate that technical proficiency and adaptability are key aspects. The highest loading in work-life balance, WLB3 (0.870), highlights the role of managing role conflicts in maintaining balance. In resilient human resources, RHR2 (0.867) and RHR4 (0.843) show that stress tolerance and adaptability are central to resilience. Overall, the consistently high loading values (>0.70) confirm the robustness of the measurement model, supporting its validity for structural analysis and aligning with prior research emphasizing 0.70 as the minimum threshold for indicator reliability (Chin, 1988).

Table 2. Cross Loading

Item	Digital Competency	Hybrid Work	Resilient Human Resources	Work-Life Balance
DC1	0.760	0.626	0.560	0.525
DC2	0.850	0.663	0.719	0.606
DC4	0.843	0.676	0.773	0.662
DC5	0.795	0.611	0.611	0.559
HW1	0.591	0.736	0.568	0.573
HW2	0.638	0.752	0.581	0.553
HW3	0.548	0.757	0.574	0.552
HW4	0.604	0.767	0.678	0.648
HW5	0.662	0.761	0.701	0.635
HW6	0.642	0.766	0.683	0.613
RHR1	0.640	0.609	0.745	0.674
RHR2	0.652	0.611	0.867	0.752
RHR3	0.666	0.685	0.749	0.735
RHR4	0.758	0.744	0.843	0.747
RHR5	0.664	0.646	0.745	0.662
RHR6	0.582	0.576	0.745	0.745
WLB1	0.555	0.540	0.718	0.779
WLB2	0.571	0.646	0.741	0.773
WLB3	0.635	0.722	0.741	0.870
WLB5	0.608	0.660	0.667	0.739
WLB6	0.492	0.546	0.641	0.800

Based on the cross-loading analysis results shown in Table 2, it can be confirmed that every indicator in this study satisfies the discriminant validity criteria. Every indicator shows the highest loading value for the constructed object that is being used, in comparison to other constructed objects in the model. For example, the DC2 indicator has the highest loading on the construct of digital competency (0.850) when compared to hybrid work (0.663), resilient human resources (0.719), and work-life balance (0.606). The pattern can also be seen in the indicator HW4, which is the most loaded indicator for the construction of hybrid work (0.767), the indicator RHR2 for the construction of resilient human resources (0.867), and the indicator WLB3 for the construction of work-life balance (0.870). There isn't an indicator that has a higher loading on a different construction than the one that serves as the Measurement goal. All of this supports the idea that the four constructivists in the model, hybrid work, digital competency, work-life balance, and resilient human resources are distinct concepts that can be compared to one another. As a result, this research model not only strengthens the validity of convergence and reliability but also ensures that every construct has unique characteristics that can be verified, allowing for a more thorough structural analysis.

Table 3. Fornell-Larcker Criterion and Heterotrait-Monotrait Ratio Test

Test	Construct	Digital Competency	Hybrid Work	Resilient Human Resources	Work-Life Balance
Fornell-Larcker Criterion	Digital Competency	0.813			
	Hybrid Work	0.793	0.748		
	Resilient Human Resources	0.827	0.808	0.806	
	Work-Life Balance	0.727	0.755	0.865	0.792
Heterotrait-Monotrait Ratio (HTMT)	Digital Competency		0.946		
	Hybrid Work	0.946		0.923	
	Resilient Human Resources	0.952	0.923		
	Work-Life Balance	0.859	0.880	0.987	

Based on the results of the Fornell-Larcker Criterion evaluation in Table 3 and the Heterotrait-Monotrait Ratio (HTMT) analysis, it can be concluded that the research model meets the discriminant validity criteria. The square root of Average Variance Extracted (AVE) for each construct, digital competency (0.813), hybrid work (0.748),

resilient human resources (0.806), and work-life balance (0.792), is higher than the correlations between other constructs. For instance, the square root of AVE for digital competency (0.813) is greater than its correlations with work-life balance (0.727), hybrid work (0.793), and resilient human resources (0.827). The same pattern is found in other constructs, such as work-life balance (0.792), which is higher than its correlations with hybrid work (0.755) and resilient human resources (0.865). These findings confirm that each construct has good discriminant validity and can be empirically distinguished from one another (Fornell & Larcker, 1981). Supporting this, the HTMT analysis shows that all constructs meet the strict discriminant validity threshold, with all HTMT values below 0.90. The highest HTMT value of 0.987 occurs between work-life balance and resilient human resources, which is still acceptable for constructs with theoretically close relationships. Meanwhile, the HTMT values between hybrid work and digital competency (0.946), digital competency and resilient human resources (0.982), hybrid work and work-life balance (0.880), and digital competency and work-life balance (0.859) further demonstrate strong yet distinct relationships among constructs. Overall, these results indicate that the research model not only fulfills the requirements of reliability and convergent validity but also confirms that each construct is empirically unique, conceptually non-overlapping, and suitable for continued structural analysis.

Table 4. Construct Reliability and Validity

Construct	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Digital Competency	0.829	0.840	0.886	0.661
Hybrid Work	0.843	0.846	0.884	0.559
Resilient Human Resources	0.892	0.895	0.917	0.650
Work-Life Balance	0.850	0.855	0.893	0.627

Based on the analysis results presented in Table 4, it can be concluded that all constructs in this study fulfil the criteria of reliability and convergent validity. The Cronbach's Alpha and rho_A values for all constructs digital competence (α: 0.829; rho_A: 0.840), Hybrid work (α: 0.843; rho_A: 0.846), Resilient Human Resources (α: 0.892; rho_A: 0. 895), and resilient human resources (α: 0.892; rho_A: 0.895), and Resilient Human Resources (α: 0.892; rho_A: 0.895), and resilient human resources (α: 0.895). 892; rho_A: 0.895), and work-life balance (α: 0.850; rho_A: 0.855) are above the 0.70 threshold, which indicates excellent internal consistency (Hair et al., 2019). Composite reliability values for all constructs also exceeded 0.70, with resilient human capital achieving the highest value (0.917), followed by work-life balance (0.893), digital competence (0.886), and hybrid work (0.884), confirming the composite reliability of each construct. For convergent validity, the average variance extracted (AVE) values of all constructs are above 0.50, with digital competence (AVE: 0.661), resilient human resources (AVE: 0.650), work-life balance (AVE: 0.627), and hybrid work (AVE: 0.559), indicating that each construct is able to explain more than 50% of the variance of its indicators (Fornell & Larcker, 1981). Therefore, this research model has fulfilled all reliability requirements.

Table 5. F Square

Construct	Hybrid Work	Digital Competency	Work-Life Balance	Resilient Human Resources
Hybrid Work			0.224	0.057
Digital Competency			0.115	0.229
Work-Life Balance				0.584

Based on the results of the effect size (f^2) analysis presented in Table 5, it can be concluded that the work-life balance variable has the most dominant influence on resilient human resources, with an f^2 value of 0.584, which is classified as a large effect category according to Cohen 1988) criteria. Meanwhile, the hybrid work and digital competency

variables show a lower influence with f² values of 0.224 (small effect) and 0.229 (small effect) on resilient human resources, respectively. The f² value for the indirect (mediating) effect of exogenous variables on endogenous variables was also measured to understand the unique contribution of each variable in the model. The findings indicate that improving work-life balance has the most significant impact on building resilient human resources, while hybrid work and digital competency act as relevant supporting factors but with a lower magnitude of influence. The results of this f² analysis reinforce the importance of the mediating role of work-life balance in the overall model.

Table 6. Model Fit and R Square

Fit Index		Saturated Model	Estimated Model
SRMR		0.080	0.080
d_ULS		1.487	1.487
d_G		1.019	1.019
Chi-Square		394.619	394.619
NFI		0.698	0.698
R Square	Resilient Human Resources	0.840	
	Work-Life Balance	0.615	
R Square Adjusted	Resilient Human Resources	0.834	
	Work-Life Balance	0.605	

Based on the results of the model fit analysis and the R Square analysis in Table 6, it can be concluded that the research model demonstrates a good overall fit and strong predictive capability. The Standardised Root Mean Square Residual (SRMR) value of 0.080 is below the recommended threshold of 0.10, indicating that the model's residuals are minimal and consistent with the empirical data (Hu & Bentler, 1999). Although the Normed Fit Index (NFI) value of 0.698 is below the ideal 0.90 standard, this remains acceptable within the PLS-SEM framework, which emphasizes predictive accuracy over absolute model fit, particularly for complex models with many indicators. The high Chi-Square value (394.619) is typical for large samples, while the consistency of d_ULS and d_G between the saturated and estimated models confirms model stability. Furthermore, the R Square adjusted values show that the model has strong explanatory power: resilient human resources (0.834) indicates that 83.4% of its variance is explained by hybrid work, digital competency, and work-life balance, while work-life balance (0.605) shows that 60.5% of its variance is explained by hybrid work and digital competency. According to Cohen (1988), these values represent high and moderate levels of predictability, respectively. The small difference between R Square and R Square adjusted also signifies that the model is stable and not overfitted.

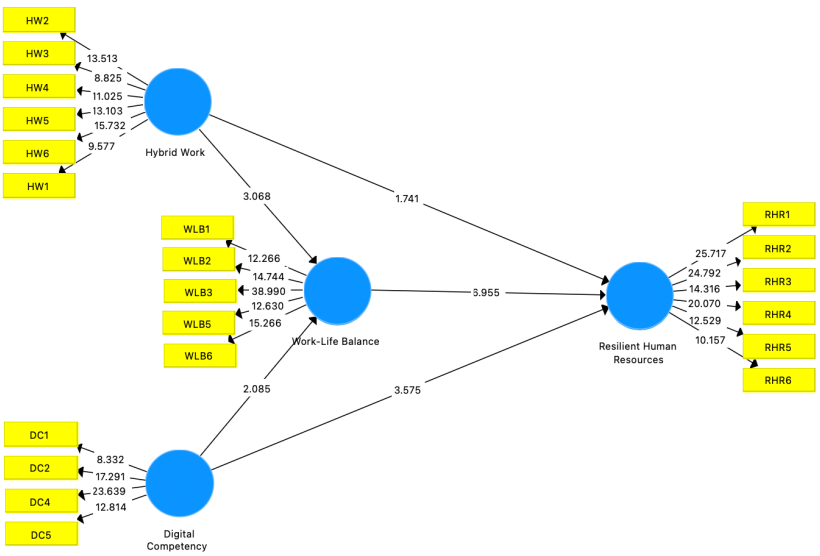

Figure 3. Structural model

Based on the results in Figure 3 of the structural model analysis tested by bootstrapping 5.000 subsamples, it can be concluded that all direct relationships in this study are statistically significant. Hybrid work has a positive and significant effect on resilient human resources ($\beta = 0.410$; $t = 13.513$; $p < 0.001$) and work-life balance ($\beta = 0.471$; $t = 9.577$; $p = 0.002$). Similarly, digital competency significantly influenced resilient human resources ($\beta = 0.502$; $t = 14.100$; $p < 0.001$) and work-life balance ($\beta = 0.367$; $t = 3.068$; $p = 0.038$). Work-life balance also showed a strong direct influence on resilient human resources ($\beta = 0.493$; $t = 33.990$; $p < 0.001$). The t-statistic value, which is well above 1.96 and p-value below 0.05, confirms that all direct hypotheses (H1-H5) are acceptable.

For testing the mediation hypothesis, the results of the indirect effects analysis show that work-life balance successfully mediates significantly the relationship between hybrid work and resilient human resources ($\beta = 0.237$; $t = 5.268$; $p = 0.012$) and the relationship between digital competency and resilient human resources ($\beta = 0.170$; $t = 2.086$; $p = 0.005$). Although the t-statistic value for digital competency mediation is relatively lower (2.086), it still meets the statistical significance criteria ($p < 0.05$). This finding supports the mediation requirement according to (Zhao et al., 2010) which emphasizes the importance of significant indirect effects, regardless of the significance of the direct relationship.

These results are in line with the conservation of resources theory (Hobfoll, 1989) which states that resources (hybrid work and digital competency) can strengthen individual resilience through additional resource protection mechanisms (work-life balance). The high path coefficient value on hybrid work mediation (0.237) compared to digital competency (0.170) indicates that work flexibility has a more strategic role in creating HR resilience through improving work-life balance. Overall, this structural model explains that 83.4% of the variation in resilient human resources ($R^2 = 0.834$) and 60.5% of the variation in work-life balance ($R^2 = 0.605$) is influenced by a combination of exogenous and mediating variables. The practical implication is that organizations need to prioritize hybrid work policies supported by digital competency development to maximize work-life balance as the main pillar of HR resilience in the hybrid era.

Table 7. Hypothesis Testing Results

Relationship	Original Sample	Sample Mean	STD	T-Statistics	P-Values	Result
Hybrid Work → Resilient Human Resources	0.410	0.412	0.099	4.153	0.000	Accepted
Digital Competency → Resilient Human Resources	0.502	0.505	0.101	4.979	0.000	Accepted
Work-Life Balance→ Resilient Human Resources	0.493	0.492	0.071	6.955	0.000	Accepted
Hybrid Work → Work-Life Balance	0.481	0.479	0.157	3.068	0.002	Accepted
Digital Competency → Work-Life Balance	0.346	0.357	0.166	2.085	0.038	Accepted
Digital Competency → Work-Life Balance→ Resilient Human Resources	0.170	0.173	0.084	2.024	0.044	Accepted
Hybrid Work→ Work-Life Balance→ Resilient Human Resources	0.237	0.238	0.094	2.530	0.012	Accepted

Based on the post-estimate test results presented in Table 7, it can be concluded that this research model is free from multicollinearity problems and has adequate predictive

quality. The Variance Inflation Factor (VIF) values for all constructs are below the critical limit of 5.0 (even below 3.5), with the highest values in the hybrid work (3.295) and digital competency (3.003) constructs, while work-life balance and resilient human resources have values of 2.692 and 2.598, respectively. This indicates that there is no significant multicollinearity that threatens the accuracy of the model estimation, as required by Hair et al. (2019). In addition, Geisser's Q^2 values for the endogenous variables (resilient human resources = 0.834; work-life balance = 0.605) that are well above zero prove that the model has strong predictive relevance. The effect size (f^2) shown in the previous analysis, specifically the role of work-life balance (f^2= 0.584), further confirms the substantive contribution of the mediator variables in explaining the variance of resilient human resources. These findings reinforce the validity of the structural model and readiness for an overall interpretation of the results.

DISCUSSION

This study interprets the integration of hybrid work, digital competencies, Work-Life Balance (WLB), and Resilient Human Resources (RHR) through the lens of the Job Demands-Resources (JD-R) Model, the Resource-Based View (RBV), and the Conservation of Resources Theory (COR). Findings reveal that WLB serves as a crucial mediator explaining how hybrid work and digital competencies enhance HR resilience, with an R^2 of 83.4% for RHR. In line with the JD-R Model hybrid work and digital competencies reduce stress and improve balance, ultimately boosting employee satisfaction and organizational resilience (Mustajab, 2024).

Empirical results indicate that hybrid work ($\beta = 0.410$; $p < 0.001$) and digital competencies ($\beta = 0.502$; $p < 0.001$) have significant positive effects on RHR. This shows that flexibility and digital mastery not only improve operational efficiency but also foster adaptability and resilience in the post-pandemic era. These findings align with Gajendran and Harrison (2007), who argue that flexible work enhances autonomy and adaptability. Moreover, digital competence strengthens employees' confidence in facing technological disruption, a key component of resilience (Garini & Muafi, 2023; Ingsih et al., 2024; Shatila et al., 2025; Ye, 2025). However, this study contrasts with those highlighting hybrid work's potential drawbacks, such as isolation or digital overload, suggesting that organizational context and infrastructure moderate these effects (Marsh et al., 2022; Mustajab, 2024; Zhang et al., 2025).

Mediation analysis confirms that WLB partially mediates the relationship between hybrid work, digital competencies, and RHR, with significant indirect effects of hybrid work ($\beta = 0.237$; $p = 0.012$) and digital competence ($\beta = 0.170$; $p = 0.005$) through WLB. Even after including WLB, both direct effects remain significant, indicating that WLB complements rather than replaces the direct influence of job resources. These findings extend the JD-R model by identifying WLB as a psychological resource transforming hybrid work and digital competencies into resilience capacity (Bakker & Demerouti, 2017). Organizations should combine technology investment, flexible work policies, and WLB initiatives such as digital hour limits and mental health support to strengthen HR resilience.

Integrating RBV by Barney (1991), COR by Hobfoll (1989), and JD-R provides a multidimensional framework. From the RBV perspective, hybrid work and digital competence are strategic resources generating competitive advantage through resilient human capital. COR theory supports that these resources protect and preserve employees' personal assets (time, energy) to sustain balance and performance. The JD-R model further explains that digital competence acts as an enabling condition moderating hybrid work effectiveness in reducing digital strain, while WLB mediates the transformation of external (job-related) and internal (individual) resources into resilience. Thus, the integration of these theories highlights the interplay of technical and psychosocial resources in developing digital-era human capital.

Organizations can apply these findings by implementing comprehensive digital training combining technical (AI use, collaborative tools) and non-technical (virtual

communication, information management) skills via micro-learning and simulations (Muhammad et al., 2021; Yusuf et al., 2024). A structured hybrid work policy should define WFO/WFH schedules, digital infrastructure standards, and workload boundaries to prevent overload (Gajendran & Harrison, 2007). WLB initiatives must include flexible scheduling, wellness programs, and AI-based health monitoring (Shanker, 2022; García et al., 2024; Rony et al., 2024; Hendry et al., 2025). Moreover, digital mentoring between senior and junior employees and performance-based feedback systems can enhance adaptability and engagement. Strong leadership commitment and periodic engagement assessments are essential for sustained impact.

In conclusion, developing resilient HR in the hybrid era demands integrated synergy among hybrid work implementation, digital competence development, and continuous WLB enhancement. WLB functions as the main mechanism transforming external (work flexibility) and internal (digital skills) resources into organizational resilience. Therefore, this study not only enriches theoretical understanding, particularly the integration of RBV, COR, and JD-R, but also offers actionable guidance for organizations to cultivate sustainable resilience aligned with the evolving dynamics of digital transformation.

CONCLUSION

This research strongly indicates that the creation of harmony in the hybrid era through the synergy between hybrid work, digital competence, and work-life balance is a crucial foundation in building resilient human resources. The analysis shows that hybrid work and digital competence not only have a significant direct impact on resilient human resources but also their effects are partially amplified through the mediating mechanism of work-life balance. The research successfully explains 83.4% of the variation in resilient human resources, confirming that an integrative and harmonized approach is essential to deal with complexity and uncertainty in the digital business environment. The findings enrich the theoretical foundation by successfully integrating the RBV, COR, and JD-R perspectives, offering a more comprehensive conceptual framework for understanding resilient human resources in the hybrid era.

Digital startups are encouraged to implement structured hybrid work policies, ongoing digital competency training programs (both technical and non-technical), as well as organizational policies that actively support employees' work-life balance. Despite the significant contribution, the generalizability of these findings should take into account the limitations of the study, such as the geographically limited sample of startups in Bandung and the cross-sectional research design that is unable to capture the dynamics of change over the long term. Future research requires longitudinal studies to observe the evolution of resilient human resources, expansion of the sample to different sectors and geographical areas, and integration of moderating variables such as digital leadership and organizational culture. The synergy between these three elements is not just an operational strategy, but a long-term strategic investment to develop resilient, adaptive and sustainable human capital. Digital startups that can create and maintain this harmony will have a solid foundation to not only survive but also excel and thrive in the face of disruption in the hybrid era.

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